

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

AFFIDAVIT

Commissioner of Patents and Trademarks Washington, D.C. 20231

Commissioner:

- I, Robert E. Schneider, herewith affirm as follows.
- (A) I was born on November 22, 1943; and I am a U.S. Citizen.
- (B) I presently live at 1015 Central Avenue, Wilmette, Illinois 60091.
- (C) In June 1966 I received a Bachelor's Degree in Electrical Engineering from Northwestern University, Evanston, Illinois; and

in June 1971 I received a Master's Degree in Electrical Engineering from Illinois Institute of Technology, Chicago, Illinois.

- (D) I have practiced Electrical and Electronics Engineering since June 1966, as follows.
- 1. Between June 1966 and December 1963, as a Junior Engineer, I did engineering design work on class 8 stepped and quasi-squarewave inverters at Vapor Corporation of Chicago, Illinois.

- 2. Between December 1968 and February 1970, as a Project Engineer, I did engineering design work related to power supplies and waveshaping circuits at SCM Kleinschmidt, Deerfield, Illinois.
- 3. Between March 1970 and January 1974, as Senior Project Engineer at Vapor Corporation of Chicago, Illinois, I was responsible for projects related to the design of aircraft controls and power supplies.
- 4. Between January 1974 and October 1976, as Program Manager at SCM Kleinschmidt in Deerfield, Illinois, I was responsible for design activities related to a microcomputer-controlled optical character reader.
- 5. Between November 1976 and August 1977, as Manager of design Engineering at Norlin Music in Lincolnwood, Illinois, I directed engineering activities related to the design of computer-based music instruction systems.
- 6. Between September 1977 and August 1979, as Group Manager at Extel Corporation in Northbrook, Illinois, I directed the activities of six engineers engaged in electronic product design activities.
- 7. Between September 1979 and January 1983, as Product Manager at Bell & Howell Company in Skokie, Illinois, I was responsible for the marketing of the Company's computer products.
- 8. Since January 1983 I have been in business for myself doing design and development work related to high frequency power supplies, microcomputer systems, and HVAC controls. During this period, about one third of my time has been spent on the design, development and contruction of high frequency inverter-type power supplies, including ballasts for fluorescent lamps.
- (E) In total, I have spent more than 10 years in the design, development, construction, testing and evaluation of electronic power supplies in general and electronic inverter-type power supplies in particular, and I have accumulated substantial experience in the art of power supplies, particularly electronic inverter-type power supplies and electronic inverter-type ballasts for fluorescent lamps.

Consequently, I believe I have at least ordinary skill in the art of electronic inverter-type power supplies and electronic inverter-type ballasts for gas discharge lamps.

(F) I have read, and I am familiar with the teachings of, each one of the prior art references identified on page 3 hereof.

Prior Art References

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# U.S. Patent No. 1,292,659 to Sreed;

* U.S. Patent No. 2,787,169 to Kivari;

* U.S. Patent No. 2,721,929 to Schwartz et al.;

* U.S. Patent No. 2,721,929 to Schwartz et al.;

* U.S. Patent No. 2,921,856 to Greene et al.;

* U.S. Patent No. 3,368,164 to Shapiro;

* U.S. Patent No. 3,368,164 to Shapiro;

* U.S. Patent No. 3,362,503 to Neumann et al.;

* U.S. Patent No. 3,522,012 to Dimitracopoulos et al.;

* U.S. Patent No. 3,621,644 to Quinn;

* U.S. Patent No. 3,631,645 to Quinn;

* U.S. Patent No. 3,737,104 to Neal et al.;

* U.S. Patent No. 3,737,104 to Neal et al.;

* U.S. Patent No. 3,801,865 to Roberts;

* U.S. Patent No. 3,801,865 to Roberts;

* U.S. Patent No. 3,801,865 to Roberts;

* U.S. Patent No. 3,939,361 to Batens;

* U.S. Patent No. 3,996,337 to Dapenbrock;

* U.S. Patent No. 3,996,337 to Dapenbrock;

* U.S. Patent No. 3,996,493 to Davenport et al.;

* U.S. Patent No. 4,001,571 to Martin;

* U.S. Patent No. 4,001,571 to Martin;

* U.S. Patent No. 4,015,750 to Elms et al.;

* U.S. Patent No. 4,015,750 to Elms et al.;

* U.S. Patent No. 4,017,750 to Elms et al.;

* U.S. Patent No. 4,017,750 to Elms et al.;

* U.S. Patent No. 4,017,750 to Elms et al.;

* U.S. Patent No. 4,017,750 to Elms et al.;

* U.S. Patent No. 4,017,797 to Capewell et al.;

* U.S. Patent No. 4,017,498 to Spira et al.;

* U.S. Patent No. 4,207,498 to Spira et al.;

* U.S. Patent No. 4,207,498 to Spira et al.;

* U.S. Patent No. 4,207,498 to Spira et al.;

* U.S. Patent No. 4,207,497 to Capewell et al.;

* U.S. Patent No. 4,207,497 to Capewell et al.;

* U.S. Patent No. 4,207,497 to Capewell et al.;

* U.S. Patent No. 4,207,797 to Capewell et al.;

* U.S. Patent No. 4,207,799 to Roberts;

* U.S. Patent No. 4,207,799 to Roberts;

* U.S. Patent No. 4,207,799 to Roberts;

* U.S. Patent No. 4,208,799 to Roberts;

* U.S. Patent No. 4,300,735 to Missen;

* U.S. Patent No. 4,300,735 to Missen;

* U.S. Patent No. 4,406,795 to Dissen;

* U.S. Patent No. 4,406,796 to Dissen;

* U.S. Patent No. 4,406,796 to Nilssen;

* U.S. Patent No. 4,406
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- (G) I have been informed to the effect that:
- (1) the Commissioner rejected certain claims in an application for a patent for the reason that the Commissioner held the claimed invention to be obvious over prior art;
- (2) as evidence of obviousness, the Commissioner cited the following prior art reference, a copy of which has been received by me:

U.S. Patent No. 4,207,498 to Spira et al.;

- (3) the Commissioner held that the teachings of the Spira patent, when combined with publicly known prior art, rendered the claimed invention obvious;
- (4) more particularly, the Commissioner held that by making -- on the basis of publicly known prior art -- a desirable obvious modification and/or adaptation of the teachings of the Spira patent the claimed invention would result;
- (5) in other words, the Commissioner held that -- in view of publicly known prior art -- the claimed invention merely constitutes an obvious modification and/or adaptation of the teachings of the Spira patent.
- (H) I have not seen the application for patent identified in section (G) above, nor have I seen the claims thereof. More particularly, I have not received a description of the claimed invention.

(I) I have been requested:

- (1) to carefully study and consider the cited reference in light of the situation described in section (G) above;
- (2) to identify each and every instance of what -- in view of published prior art known to me -- I see as a desirable obvious modification and/or adaptation of Spira's teachings;
- \sim (3) to express in writing each one of those desirable obvious modifications and/or adaptations.

- (J) I have performed the study and consideration requested of me in section (I) above, having spent therefor an amount of time that I judged to be reasonable; and I herewith set forth in writing each and every one of those desirable obvious modifications and/or adaptations, as follows:
- (1) Spira's invention allows the inverter output to float. This could lead to problems in an installation such as RFI and shock hazard if there is a short. Establish a ground connecton from, perhaps, the common point of the two lamps.
- (2) Spira's approach suffers from handling the power too many times. The power factor inductor 90, the resonant circuit 55, the inverter transformer (primary and secondary) 58, and the ballast inductor all handle the power to the lamps.

Otherwise, I did not see any obvious beneficial modifications and/or adaptations of Spira's teachings.

Robert E. Schneider

STATE OF ILLINOIS)

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COUNTY OF COOK)

OFFICIAL SEAL
SHIRLEY FOSS
Notary Public, Cook County
State of Illinois
ly Commission Expires 11-21-93

SEAL

Sworn to and subscribed before me this 31 day of

Notafy Public